4.0271 · 4.0272 · 4.0273 · 4.0274 · 4.0275

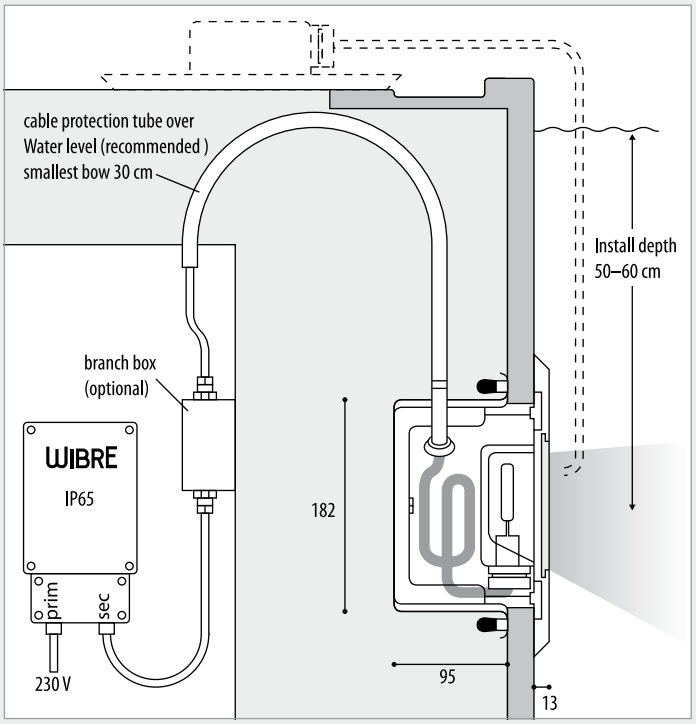
Swimmingpool-Lights and built-in pot

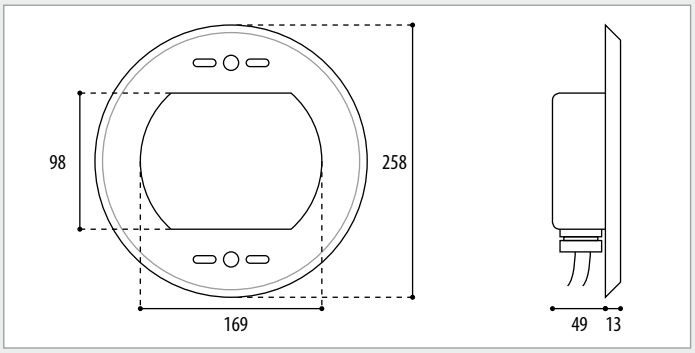
4.0271

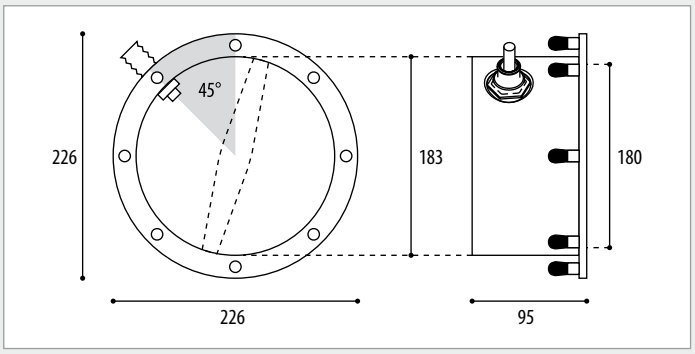
4.0272

4.0275

4.0274







1. Application

Wall mounted swimming pool spotlights for lighting public and private swimming pools. Suitable to be installed into:

· concrete pools with tiles
· metal and plastic lined pools
· concrete built pools lined with foil
· concrete built pools lined with gummed foil
· Special constructions on request

2. Operating and safety instructions

These lights are only to be used under water. They are especially suitable for use in sea water and saline pools. The water should have a ph-value of between 7 and 8 and be free from metal corroding oxidants. The lights are only to be connected up to WIBRE transformers.

· Don't cover the glass panes with unsuitable items. This leads to overheating of the glass surface, thereby damaging the seal.
· Touching the glass for a long time can cause burns.

3. Construction

The lamp consists of:

· stainless steel marine grade, material no. 316L, 1.4539
· safety glass (ESG)
· silicone seal (temperature resistant)
· reflector made of anodized pure aluminium
· WIBRE special light bulbs
QT12 100 W/12 V (Art. 7.0325.00.00), QT16 175 W/12 V (Art. 7.2217.00.00)
QT16 200 W/30 V (Art. 7.0217.00.00), QT16 400 W/30 V (Art. 7.0417.00.00)
POW-LED with 18 x 2 Watt, 700 mA, white or RGB-color change 24 x 1 W, 350 mA
· cable gland PG16, stainless steel material no. 1.4571, 1.4539
· 3 m special water resistant connected cable 2 x 2,5 qmm, 2 x 4 qmm, 8 x 0,5 qmm
· Protection IP68 up to 3 m
· Protection class III
· Weight without connection lead is 3 kg

4. Light technology

The optimum built-in depth as measured from the water surface to the middle of the spotlight is 50-60 cm! The rolled up length of flex must be long enough in order for the spotlight to be unscrewed under water and then placed on the edge of the pool when a light bulb needs to be replaced.

Standards for efficient underwater lighting WIBRE recommends DIN67526 for public areas, e.g. sport stadium illumination with a lighting current of 1000lm/sq.m of water surface. For private swimming pools WIBRE recommends 500lm/sq.m. Lamp lighting currents of the light bulbs available:

QT12, 100 W/12 V, 2200 lm
QT16, 175 W/12 V, 5100 lm
QT16, 200 W/30 V, 5800 lm
QT16, 400 W/30 V, 11600 lm
POW-LED 18 x 3 W, 700 mA, white, 24 V-DC
POW-LED 24 x 1 W, 350 mA, RGB, 24 V-DC
POW-LED 27 x 3 W, 700 mA, white, 12 V-DC
POW-LED 27 x 3 W, 700 mA, RGB, 12 V-DC

The beam angle is horizontal, symmetrical, with 80°and vertical, asymmetrical, with 45°. These values appertain to the medium air.

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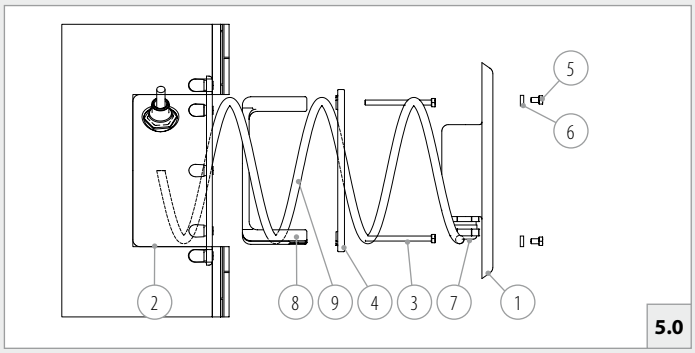
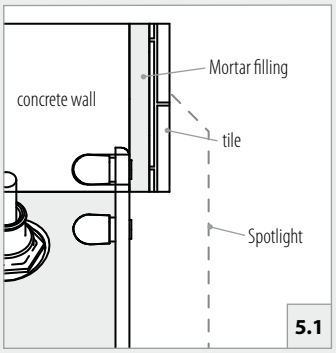
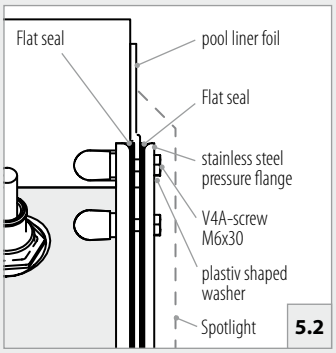
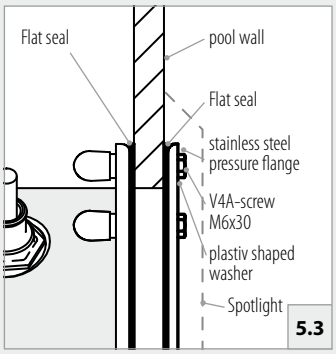
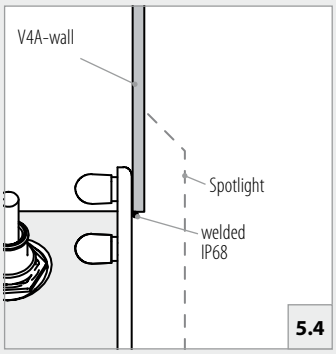
1. Spotlight 4.0271/4.0272/ 4.0273/4.0275
2. Built-in pot 4.0274
3. 2 x screws M6x80 V4A
4. Plastic fastening ring (9.0271.00.15)
5. 2 x screws M6x20 V4A
6. 2 x plastic plain washers
7. Screwed cable gland with a PG16 cap nut16 (9.0271.00.16)
8. Mounting bracket (9.0274.00.10)
9. Special underwater cable

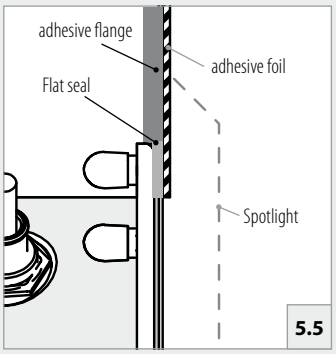


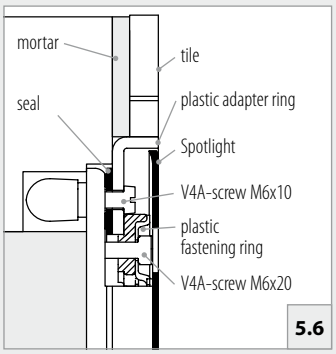












Tile + mortar optimum 14 mm!

5. Installation of the built-in pot (4.0274) as well as mounting the fasteners

The safety precautions should be adhered to during installation.

5.1 Installation in concrete lined pool (set in the concrete)

Do not damage the protective foil on the built-in pot. Remove this foil after installation of the interior parts has been completed! Avoid any contact with the reinforcing construction steel in the concrete.
Measure the recommended depth for built-in pot (circle 204 mm). Then attach it to the formwork with the M6x60 screws so that the lead thread joint is set at an angle of 45° to the side. The inset nuts are to be aligned horizontally and vertically. (see **5.1**) Now attach the cable protective hose to the built-in pot and lay out the hose. If possible lay the hose out above the surface of the water in a broad radius so that the power supply lead can be easily shoved in it. After removing the formwork, place back the tile right up to the inside rim of the built-in pot. Now remove the protective foil from the built-in pot. The plastic fastening ring **(4)** then fix to the fastening bracket **(8)** with the V4A M6x80 **(3)** screws. It is horizontally aligned and tightened up until it lies firmly on the wall tile. It maybe necessary at a later stage to tighten up the nut on the fastening bracket.
Don't tighten the plastic fastening ring to strong (use existing socket key).

5.2 Installation in a concrete pool lined with foil

In this case the installation of the built-in pot is the same as into a concrete pool. Remove the foil off the built-in pot before fixing the pool liner foil!
After the pool liner foil has been fixed, cut out the required size of opening for the spotlight (Ø 182 mm) as well as the holes for the (Ø 7 mm) V4A M6x30 screws. The stainless steel pressure flange 4.0274.00.25 can be used as a template here. The M6x30 screws are now fitted with the plastic shaped washers, then screwed through the holes in the stainless steel pressure flange, through the flat seal, pool liner foil and flat seal. Make sure you screw them in this order! Finally they are firmly tightened up in the insert nuts in the built-in pot.
Attention: Fit the flat seals and plastic shaped washers as shown in the illustration.
The pool liner foil must lie between the flat seals of the stainless steel pressure flange 4.0274.00.25. The plastic fastening ring and the fastening bracket are not required for installation in the foil lined pool. The spotlights are fitted directly with two screws M6 x 20, V4A **(5)** to the stainless steel pressure flange.

5.3 Installation in thin walled metal and plastic lined pools

Remove the protective foil off the built-in pot! Measure the size for the required opening (Ø 182 mm) for the spotlight and the respective holes (Ø 7 mm) for the V4A M6x30 screws with the help of the stainless steel pressure flange 4.0274.00.25. Make sure you get the correct vertical position for the threaded joint clip. Then cut out the hole in the pool wall. The M6x30 screws are now fitted with the plastic shaped washers, then screwed through the holes in the stainless steel pressure flange, through the flat seal, pool wall and flat seal. Make sure you screw them in this order! Finally they are firmly tightened up in the insert nuts in the built-in pot.
Attention: Fit the flat seals and plastic shaped washers as shown in the illustration. The pool liner foil must lie between the flat seals of the stainless steel pressure flange 4.0274.00.25.
The plastic fastening ring and the fastening bracket are not required for installation in thin walled metal and plastic pools. The spotlights are fitted directly with two screws M6 x 20, V4A (5) to the stainless steel pressure flange.

5.4 Installation in stainless steel pools

Remove the protective foil off the built-in pot! Measure the size for the required opening (Ø 182 mm) for the built-in pot. Make sure you get the correct vertical position for the threaded joint clip. Then cut out the hole in the pool wall. Fix the built-in pot to the stainless steel pool wall from backside and weld the built-in pot to the wall in IP68.
The plastic fastening ring **(4)** then fix to the fastening bracket **(8)** with the V4A M6x80 **(3)** screws. It is horizontally aligned and tightened up until it lies firmly on the wall tile. It maybe necessary at a later stage to tighten up the nut on the fastening bracket.

5.5 Installation in a concrete pool with gummed foil

In this case the installation of the built-in pot is the same as into a concrete pool. Remove the protective foil off the built-in pot and tightly screw the stainless steel flange 4.0274.55.55 to the built-in pot with the respective flat seal and the V4A screws. Avoid any hollow spaces developing behind the flange! Now the foil is laid out throughout the pool. Afterwards the plastic fastening ring is screwed to the fastening bracket with the V4A M6x80 screws. It is horizontally aligned and tightened up so tightly that that it lies firmly on the gummed layer. Tighten up the nut on the fastening bracket whenever required. Don't tighten the plastic fastening ring to strong (use existing socket key).

5.6 Flush mounting installation in concrete pools with tiles for 4.0275

In this case the installation of the built-in pot is the same as into a concrete pool, but the **plastic adapter ring** is necessary to be mounted after moulding concrete. the plastic adapterring has to be screwed to the build-in pot, the tiles should be the same level than the adapter ring. (see **5.6**) .
Afterwards the plastic fastening ring is screwed to the fastening bracket with the V4A M6x80 screws. It is horizontally aligned and tightened up so tightly that that it lies firmly on the plastic adapter ring. Tighten up the nut on the fastening bracket whenever required. Don't tighten the plastic fastening ring to strong (use existing socket key).
In case of other construction please contact us!

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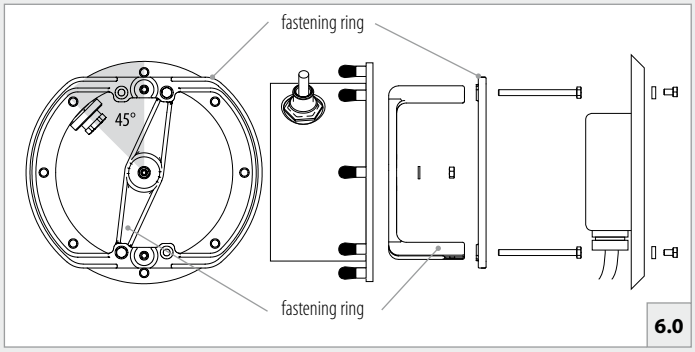
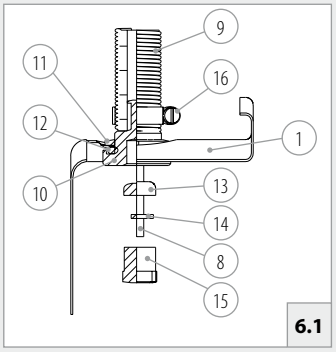
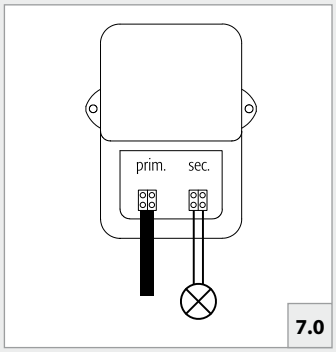


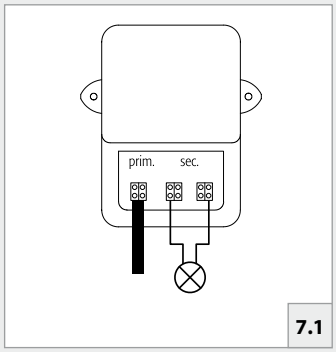


1. Built-in pot 4.0274
8. Cable
9. Cable protection tube
10. Connection piece DK68
11. Nut
12. O-Ring
13. Rubber gasket ring (9.0268.00.20 – 2 x 2,5)
14. Pressure washer (9.0268.00.22)
15. Pressure screw (9.0268.00.24)
16. Clamp for cable protection tube



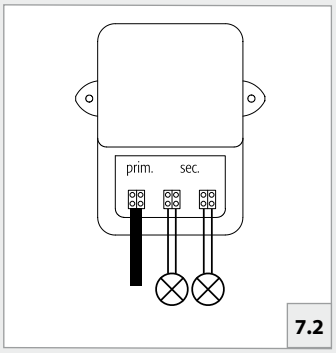
Spotlight connection

f. e.: 5.0410.00.01
connection sek 1 x 200 W/30 V



Spotlight connection

f. e.: 5.0420.00.01
connection sek 1 x 400 W/30 V



Double spotlight connection

f. e.: 5.0420.00.01
connection sek 2 x 200 W/30 V

6. Installation of spotlight

If any screws get lost then only replace them with screws made out of V4A or respectively order spare screws from WIBRE, who use special materials.
Lay the spotlight on the edge of the pool. Pull the special cable through the threaded joint and the cable protection tube and screw it to the pressure tight screwed cable gland. On installation of the spotlight fold the special cable without snarling it inside the built-in pot. Place the spotlight in the built-in pot and fix it with the supplied V4A M6x20 screws and plastic plain washers on the plastic flange ring or respectively directly on the stainless steel pressure flange (4.0274.00.25). Don't tighten the plastic fastening ring to strong (use existing socket key). The length of the rolled up cable must be measured long enough for the spotlight to be unscrewed under water, placed on the edge of the pool for the bulb to be replaced when required.

7. Transformer

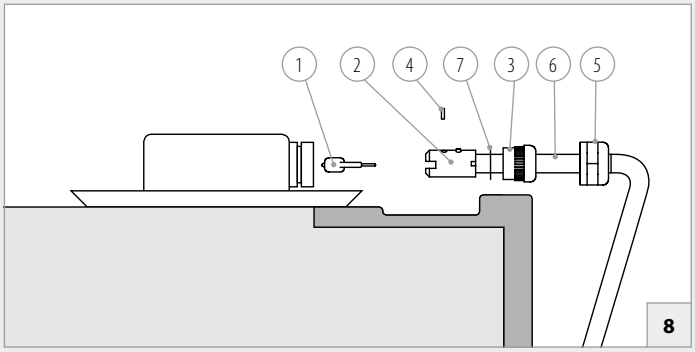
Please observe the special installation instructions for WIBRE transformers. The transformers supplied fulfil the requirements of the WIBRE swimming pool spotlights and installation stipulations. They will grant you a flawless service and an optimum lifespan. The transformers are designed for permanent installation at a location.
Attention: For safety reasons only original WIBRE transformers are to be used. These are designed as isolating transformers. They have no galvanised connection to the primary side.

5.0100.00.00 Transformer 100VA
ta40°C/E IP65 T:1.0A
prim: 230 V 50/60 Hz
sec: 12 V/AC 2 x 50 W

5.0311.00.00 Transformer 200VA
ta40°C/E IP65 T:1.6A
prim: 230 V 50/60 Hz
sec: 12 V/AC 2 x 100 W

5.0410.00.01 Transformer 200VA
ta40°C/E IP65 T:2,0A
prim: 230 V 50/60 Hz
sec: 30 V/DC 1 x 200 W

5.0420.00.01 Transformer 400VA
ta40°C/E IP65 T:3,15A
prim: 230 V 50/60 Hz
sec: 30 V/DC 2 x 200 W



1. Light bulbs
2. Steatite connection
3. Silicone cable seal
4. 1.5 inside hexagon head cap screw
5. Union nut
6. Special underwater cable
7. Pressure disk

8. Light bulbs and replacement of light bulbs

Only the special WIBRE low voltage halogen bulbs are to be used for underwater applications.

QT12 100 W/12 V (7.0325.00.00)	QT16 175 W/12 V (7.2217.00.00)
QT16 200 W/30 V (7.0217.00.00)	QT16 400 W/30 V (7.0417.00.00)

The light bulbs can be changed in a water filled swimming pool provided the spotlight installation had previously been appropriately carried out. This will facilitate a cost-effective and economical maintenance.
Switch off the WIBRE swimming pool spotlight and make sure it cannot be accidentally switched on again. Unscrew both the hexagon head cap screws above and below the glass pane with the respective plastic plain washers. Remove the spotlight from the built-in casing and lay it with the glass pane face down on a soft base to avoid any scratches occurring. Carefully check over the cable and don't pull on it as this can cause damage and cause leakiness of the spotlight. Cables that are damaged in any manner must be replaced.
Now loosen the union nut **(5)** of the screwed cable gland using the WIBRE special wrench or an SW30 fork wrench. Carefully remove the cable silicone seal **(3)** together with the light bulb holder **(2)**. Inspect the cable seal **(3)** for any damage. If there is any kind of damage the cable must be replaced. Used tools must be clean and proper.
Loosen the two upper screws **(4)** of the holder **(2)** with the 1,5 sized inside hexagon sokket head wrench. Remove the bulb **(1)** and replace it with a new one. Make sure you don't touch the bulb with your fingers and take care that the bulb sits properly. Now lightly screw up the bulb to fit snugly. Put the holder back into the spotlight and fit it with the two clips accurately in the two conduits of the screwed cable gland. Insert the cable silicone seal making sure that it fits absolutely tightly.
Screw on the union nut and tighten up. Now roll up the spotlight cable without any snarling to avoid any pinch points or damage occurring. Roll it into the built-in pot and insert the spotlight after it. Screw in the two V4A M6x20 screws with plastic plain washers and tighten up.

9. General maintenance information

- Do not let the spotlight come into contact with metal corroding cleaning agents or acids when the swimming pool is being cleaned.
- The use of acidic cleaning agents on or near spotlights constructed out of stainless steel should be avoided at all times.
- Regularly clean spotlights and their casings to avoid the build up of extraneous rust deposits.
- Evaporation of swimming pool water can lead to the build up of a deposit of dirt particles and to an increase of chloride. If sufficient cleaning is not carried out it punctuated corrosion will occur.
- **Attention:** Do not use steam jets when cleaning.
- Protect the spotlight from freezing.
- Lost screws may only be replaced with V4A screws.
- Depending on how often the pool is used (number of active days) and the quality of the water, there should be a replacement of the glass pane seals and threads every 5 to 7 years.

10. Spare parts to WIBRE 4.0271 · 4.0272 · 4.0273 · 4.0274 · 4.0275

WIBRE halogen special bulbs

QT12 100 W/12 V	7.0325.00.00
QT16 175 W/12 V	7.2217.00.00
QT16 200 W/30 V	7.0217.00.00
QT16 400 W/30 V	7.0417.00.00
Light bulb holder, steatite	9.0271.00.13
Rippled glass, tempered, clear	9.0271.00.04
Rippled glass, tempered, frosted	9.0272.00.04
Mould seal, glass pane, silicone	9.0271.00.05
Cap nut M5, V4A 1.4571	9.0271.00.10
Plain washer, PP for cap nut M5	9.0271.00.11
Screws M6 x 20, V4A	9.0271.00.01
Plastic fastening ring, POM	9.0271.00.15
Screwed cable gland seal insert, silicone	9.0271.00.06
O-ring for screwed cable gland	9.0271.00.07
Screwed cable gland, V4A complete with seal insert, O-ring	9.0271.00.16
Special underwater cable, per metre, 2x2.5 qmm	9.6150.02.25
Special underwater cable, per metre, 2x4.0 qmm	9.6150.02.40
Special underwater cable, per metre, 2x6.0 qmm	9.6150.02.60
Fastening bracket, POM	9.0274.00.10
Special underwater cable, per metre, 2x2.5 qmm	9.0274.00.01
Nut M6 for fastening bracket	9.0274.00.02
Compressed threaded joint for built-in pot, complete	9.0274.00.21

11. Ancillary parts to 4.0271 · 4.0272 · 4.0274

Safety transformer IP65, 12 V-AC/100 VA	5.0100.00.00
Safety transformer IP65, 12 V-AC/200 VA	5.0311.00.00
Safety transformer IP65, 12 V-AC/350 VA	5.0103.00.00
Safety transformer IP65, 30 V-DC/200 VA	5.0410.00.01
Safety transformer IP65, 30 V-AC/400 VA	5.0420.00.01
Stainless steel pressure flange, V4A, with flat seals for foil lined and thin walled pools	4.0274.00.25
Gummed flange, V4A for pools lined with gummed foil or a liquefied coating	4.0274.55.55
Conduit box IP67, cast aluminium	4.0069.00.00
Conduit box IP67, cast ferrite	4.0069.01.00
Conduit box IP67, stainless steel	4.0069.02.00
Conduit box IP68, stainless steel	4.0690.00.00
Plexiglas coloured pane, yellow	4.0265.04.00
Plexiglas coloured pane, red	4.0265.05.00
Plexiglas coloured pane, blue	4.0265.06.00
Plexiglas coloured pane, green	4.0275.07.00
Tool kit for replacing light bulbs, 1 special wrench for screwed cable gland, 1 x 1.5 inside hexagon socket head wrench for changing light bulbs	4.0271.00.20

12. Warranty conditions

The following warranty times and conditions are valid from the day of delivery:

- 24 months on WIBRE underwater spotlights
- Light bulbs are not included in the warranty
- Proven faults appertaining to material, construction or processing fall under the warranty of the manufacturer.
- We accept no liability for damages arising through negligence of the operating instructions or improper repair work.
- No liability is accepted for installation carried out contrary to the instructions or for the use of inappropriate light bulbs.
- We reserve the right to instigate any technical improvements without prior notice.
- We cannot accept liability for the condition of tightness arising from unauthorized screwing of the 8 cap nuts of the spotlight. Any dismantling of the spotlight is not authorized prior to permission having first been obtained from WIBRE. Basically any spotlight that is defect should be sent back to WIBRE.

W045 Stand 02.12 - Technische Änderungen vorbehalten - Für Druckfehler übernehmen wir keine Haftung

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